UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,783	10/05/2004	Ajitabh Prakash Saxena	04-1551	5782

24319   7590   04/19/2007
LSI LOGIC CORPORATION
1621 BARBER LANE
MS: D-106
MILPITAS, CA 95035

EXAMINER
SCHNEIDER, JOSHUA D

ART UNIT	PAPER NUMBER
2182	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/711,783	SAXENA ET AL.
	Examiner	Art Unit
	Joshua D. Schneider	2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05 October 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-31</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-31</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2.   Claims 12-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The computer readable medium includes both transmission and recordable type mediums. Transmission mediums are not tangible mediums and therefore the claims cover subject matter that is non-statutory subject matter. Correction is required to limit the claimed subject matter to tangible, storage mediums.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-3, 5-10, 12-21, 23-25, and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 7,058,811 to Spain et al. in further view of U.S. Patent 5,948,076 to Anubolu et al.

5.   With regards to claims 1, 12, 15, 23, and 27, Spain teaches at least one non-volatile store (firmware, column 1, lines 17-25); an interface adapted to provide connectivity between the at least one non-volatile store and a computer system (Fig. 1, connection between software program (host system) and memory element); at least one processor (inherent to operation of software

program); at least one memory (inherent to software program); executing code stored in a non-volatile store associated with a peripheral device (firmware, column 1, lines 17-25), wherein executing the boot-time code includes actions of: reading identification numbers from the peripheral device (hardware address read and used to create unique signature, column 2, lines 23-29); and writing a signature to a configuration space of the peripheral device based on the identification numbers (column 2, lines 29-30). Spain fails to teach, but Anubolu teaches that it is commonly known in the art that devices are identified with boot time code (Figs. 3 and 4, elements 400 and 402). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the boot time operation of Anubolu with the device identification of Spain in order to start the computer in a fully operational state without corruption.

6.   With regards to claims 5, 7, 16, and 18, and further regards to claim 27, Spain teaches executing device driver code associated with a device driver, wherein executing the device driver code includes actions of: reading the signature from the configuration space of the peripheral device (Fig. 4, element 440); determining whether the signature denotes that the device driver may be loaded for the peripheral device (comparison to known signature, Fig. 4, element 460); and in response to a determination that the signature denotes that the device driver may be loaded for the peripheral device, loading the device driver (success of comparison determination or lack thereof, Fig. 4, elements 470 and 480).

7.   With regards to claims 2, 9, 13, 20, 24, and 29, Spain fails to teach, but Anubolu teaches the identification numbers include a vendor identification number and a device identification number (column 1, lines 44-47). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the identification numbers of Anubolu with the device

identification of Spain in order to start the computer in a fully operational state without corruption.

8.   With regards to claims 3, 10, 14, 21, 25, and 30, Spain fails to teach, but Anubolu teaches the identification numbers include a subsystem vendor identification number and a subsystem device identification number (column 1, lines 42-44). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the identification numbers of Anubolu with the device identification of Spain in order to start the computer in a fully operational state without corruption.

9.   With regards to claims 6, 8, 17, 19, and 28, Spain teaches signature denotes that the device driver may be loaded for the peripheral device if the signature matches a second signature associated with the device driver (comparison to known value, Fig. 4, element 460).

10.   Claims 4, 11, 22, 26, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 7,058,811 to Spain et al. and U.S. Patent 5,948,076 to Anubolu et al. in further view of U.S. Patent Application Publication 2005/0038981 to Connor et al.

11.   With regards to claims 4, 11, 22, 26, 31, neither Spain nor Anubolu teach, but Connor teaches the signature is written to a scratchpad register in the configuration space of the peripheral device (paragraph 39, Fig. 6, element 612). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the identification storage of Connor with the combined device identification of Spain and Anubolu in order to start the computer in a fully operational state without corruption due to signature manipulation.

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Application Publication 20060155978 to David et al. teaches the use of various identification numbers associated with different protocols. U.S. Patent Application Publication 2002/0133694 to Ray et al. teaches use of a device signature to verify correct use of processor requests. U.S. Patent 5,671,367 to Le Roux teaches that the use of device signature for validity comparisons was well known before allowing further operations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Schneider whose telephone number is (571) 272-4158. The examiner can normally be reached on M, T, Th, and F, 9-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JDS

KIM HUYNH
SUPERVISORY PATENT EXAMINER
4/12/07